



# Missouri Department of Natural Resources

## PUBLIC NOTICE

### APPLICATION FOR MISSOURI STATE OPERATING PERMIT

DATE: September 22, 2006

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed effluent limitations and/or determinations are invited to submit them in writing to the Department of Natural Resources, Northeast Regional Office, 1709 Prospect Drive, Macon, MO 63552, ATTN: G. Irene Crawford, Regional Director. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by October 23, 2006, or received in our office by 5:00 p.m. on October 26, 2006. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

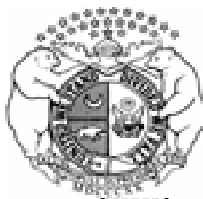
Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, <http://www.dnr.mo.gov/env/wpp/index.html>, or at the Department of Natural Resources, Northeast Regional Office, 1709 Prospect Drive, Macon, Missouri 63552.

Public Notice Date: September 22, 2006  
Permit Number: MO-0132829  
Northeast Regional Office

<b>FACILITY NAME AND ADDRESS</b>	<b>NAME AND ADDRESS OF OWNER</b>
Straube Sewer System 56173 Highway HH Hannibal, MO 63401	Mr. Michael Straube 11325 Dove Ridge Rd. Hannibal, MO 63401
<b>RECEIVING STREAM &amp; LEGAL DESCRIPTION</b>	<b>TYPE OF DISCHARGE</b>
Unnamed tributary to Bear Creek Bear Creek (C) (00009) Sec. 12, T56N, R5W, Ralls County	Domestic, new

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No.

MO-0132829

Owner:

Mr. Michael Straube

Address:

11325 Dove Ridge Rd. Hannibal, MO 63401

Continuing Authority:

Same as above

Address:

Same as above

Facility Name:

Straube Sewer System

Facility Address:

56173 Highway HH, Hannibal, MO 63401

Legal Description:

NW ¼, NW ¼, NW ¼, Sec. 12, T56N, R5W, Ralls County

Latitude/Longitude:

+3940138/-09124588

Receiving Stream:

Unnamed tributary to Bear Creek (U)

First Classified Stream and ID:

Bear Creek (C) (00009)

USGS Basin & Sub-watershed No.:

(07110004-030002)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

**FACILITY DESCRIPTION**

Outfall #001 - Domestic Wastewater - SIC #4952

Septic Tank/Recirculating Textile Filter/ultraviolet disinfection/sludge disposal by contract hauler

Design population equivalent is 7.5.

Design flow is 750 gallons per day.

Design sludge production is 0.0525 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

A handwritten signature in black ink, reading "Doyle Childers".

Effective Date

Doyle Childers, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

Expiration Date

MO 780-0041 (10-93)

G. Irene Crawford, Director, Northeast Regional Office

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				PAGE NUMBER 2 of 3		
				PERMIT NUMBER MO-0132829		
<p>The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on the date of issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:</p>						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/month	24hr. estimate
Biochemical Oxygen Demand <sub>5</sub>	mg/L		45	30	once/month	grab
Total Suspended Solids	mg/L		45	30	once/month	grab
pH – Units	S.U.	**		**	once/month	grab
Ammonia as N	mg/L	*		*	once/month	grab
Temperature	°C	*		*	once/month	grab
Fecal Coliform (Note 1)	#/100ml	1000		400	once/month	grab
<p>MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.</p>						
<b>B. STANDARD CONDITIONS</b>						
<p>IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u>, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.</p>						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to area-wide wastewater treatment system within 90 days of notice of its availability.

C. SPECIAL CONDITIONS (continued)

4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
  - (1) One hundred micrograms per liter (100 µg/L);
  - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

6. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
  - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (5) There shall be no significant human health hazard from incidental contact with the water;
  - (6) There shall be no acute toxicity to livestock or wildlife watering;
  - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
  - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
- (b) If sludge is not removed by a contract hauler, Permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

Date of Fact Sheet: July 24, 2006

Date of Public Notice: September 22, 2006

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT  
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0132829

FACILITY NAME: Straube Sewer System

OWNER NAME: Mr. Michael Straube

LOCATION: Sec. 12 T56N R5W County: Ralls

RECEIVING STREAM: Unnamed tributary to Bear Creek (C) (00009)

FACILITY CONTACT PERSON: Mr. Michael Straube TELEPHONE: (573) 406-4630

FACILITY DESCRIPTION

The proposed facility will be a septic tank, followed by a recirculating textile filter (consisting of a recirculating tank and two AdvanTex AX20 textile filters from Orenco Systems), then followed by ultraviolet disinfection. A contract hauler would dispose of the sludge. The design flow is 750 gallons per day.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Department of Natural Resources under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) "defines the Clean Water Commission water quality objectives in terms of water uses to be maintained and the criteria to protect those uses." The receiving stream's beneficial water uses to be maintained are livestock and wildlife watering, protection of aquatic life, and whole body contact recreation category "B".

To protect these beneficial uses and the water quality of the receiving stream, effluent limitations are being established under federal and state laws.

EFFLUENT LIMIT DERIVATION & RATIONALE

A Water Quality Review Sheet was developed, based on the regulations and policies of the Missouri Department of Natural Resources. Permit will contain a "reopener clause" to address potential water quality issues should this or other monitoring or observations indicate water quality standards may be exceeded or if existing designated uses may be negatively impacted due either in whole or in part to this discharge.

Standard secondary treatment technology based limits for BOD<sub>5</sub>, TSS, pH, and fecal coliform are assumed to be protective of the receiving stream based on the small size of the proposed discharge and were established according to 10 CSR 20-7.015(8)(B). Monitoring for temperature and ammonia are included to determine whether "reasonable potential" to exceed water quality standards exists after the discharge begins. Although the Water Quality Review Sheet set forth limits for total residual chlorine, the limits were not added to the permit because the proposed method of disinfection is ultraviolet radiation.

This permit will be issued for a period of five (5) years.



**Missouri Department of Natural Resources**  
**Water Protection Program**  
**Water Pollution Control Branch**  
**NPDES Permits and Engineering Section**

**Water Quality Review Sheet**  
**Facilities with Design Flow < 22,500 gpd**  
*Determination of Effluent Limits*

**Facility Information**

FACILITY NAME: Straube Sewer System PERMIT #: New

FACILITY TYPE/DESCRIPTION: Proposed new WWTF

EDU\*: Plains/MS tribs btwn DesM & MO River 8-DIGIT HUC: 07110004 COUNTY: Ralls

\* Ecological Drainage Unit

LEGAL DESCRIPTION: NW NW NW S12 T56N R5W LATITUDE/LONGITUDE: 3940138/-09124588

WATER QUALITY HISTORY: N/A

**Outfall Characteristics**

OUTFALL	DESIGN FLOW (GPD)	TREATMENT TYPE	EFFLUENT TYPE
001	745	Secondary	Domestic wastewater

If facility design flow  $\geq 22,500$  gpd or effluent type is not municipal or domestic wastewater, a formal water quality review sheet must be completed.

**Receiving Waterbody Information**

WATERBODY NAME: Unnamed tributary to Bear Creek 0.75 miles to Class C CLASS: U

WATERBODY NAME: Bear Creek CLASS: C

Discharge to or within two (2) miles of a losing stream (10 CSR 20-7.031, Table J or as determined by GSRAD) ☐

Discharge to or within two (2) miles of a classified waterbody designated for whole body contact recreation ☒

Use Attainability Analysis Conducted ☐

If the facility discharges to any of the waterbody types below, is within an area experiencing rapid development, or if a site-specific water quality impact study has been conducted, this form is not applicable.

Lake/Reservoir ☐ 303(d) Waterbody ☐ Metropolitan No-Discharge Stream ☐

Outstanding National/State Resource Water and Drainages Thereto ☐

## Permit Limits and Information

### OUTFALL #001

*DISCHARGE TO OR WITHIN TWO (2) MILES OF A CLASSIFIED WATERBODY DESIGNATED FOR WHOLE BODY CONTACT RECREATION*

PARAMETER	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MONITORING FREQUENCY
FLOW	GPD	*		*	Once/Month
TEMPERATURE	°C	*		*	Once/Month
BOD <sub>5</sub>	MG/L		45	30	Once/Month
TSS	MG/L		45	30	Once/Month
pH	S.U.	6 – 9		6 – 9	Once/Month
AMMONIA AS N	MG/L	*		*	Once/Month
FECAL COLIFORM	NOTE 1	1000		400	Once/Month
TRC	MG/L	0.019		0.010	Once/Month

Note 1 – Colonies/100 mL, \* – Monitoring Requirement Only

Please report the date, time, and location for each parameter sampled along with the average daily flow (actual flow measured or estimated, not design flow). All the parameters should be sampled on the same day and within no more than a 2-hour period. If discharge is contingent on storm events, rainfall should be measured every time there is a discharge.

### Derivation and Discussion of Limits

- **Biochemical Oxygen Demand (BOD<sub>5</sub>)** – 10 CSR 20-7.015(8)(B)1.
- **Total Suspended Solids (TSS)** – 10 CSR 20-7.015(8)(B)1.
- **pH** – 10 CSR 20-7.015(8)(B)2.
- **Ammonia as Nitrogen** – Monitoring Requirement Only.
- **Fecal Coliform** – 10 CSR 20-7.015(8)(B)4.A. All classified waters in Missouri shall be designated for Whole Body Contact Recreation. Operating permits issued following this rule will contain effluent limits for applicable bacteria criteria.
- **Total Residual Chlorine (TRC)** – Effluent limitation for the protection of aquatic life against acute toxicity during critical low-flow conditions and minimal dilution [10 CSR 20-7.031(3)(I)1.]

Standard secondary treatment technology based limits for BOD<sub>5</sub>, TSS, pH, and fecal coliform are assumed to be protective of the receiving stream based on the small size of the proposed discharge. Monitoring for temperature and ammonia are included to determine whether “reasonable potential” to exceed water quality standards exists after the discharge begins. Permit will contain a “reopener clause” to address potential water quality issues should this or other monitoring or observations indicate water quality standards may be exceeded or if existing designated uses may be negatively impacted due either in whole or in part to this discharge. Should chlorine be used at this facility, the effluent shall be dechlorinated to meet the above referenced limits. Alternate TRC limits protective of aquatic life against acute and chronic toxicity may be submitted to the department for consideration.

Reviewer: michael abbott

Date: June 15, 2006

Approver: Refaat Mefrakis